CLAIMS

What is claimed is:

1. An apparatus comprising:

a grip; and

a binocular digital display assembly coupled to the grip and rotatable about the grip between a plurality of angular positions which can be maintained during use.

2. The apparatus of Claim 1 wherein the binocular display assembly comprises:

a first lens;

a first display element disposed to be a focal distance from the first lens when the display assembly is in a deployed orientation;

a second lens; and

a second display element disposed to be a focal distance from the second lens when the display is in a deployed orientation.

3. The apparatus of Claim 2 wherein the display elements are one of liquid crystal displays (LCDs), organic light emitting diode (OLED) displays, Liquid Crystal On Silicon (LCOS) displays, electroluminescent (EL) displays, and retinal scan lasers.

4. The apparatus of Claim 1 wherein the display assembly has a stowed orientation and a deployed orientation and wherein when in the stowed orientation, at least 25% of a deployed volume of the display assembly overlaps with a volume of the grip.

5. The apparatus of Claim 4 further comprising:

a self powered expander which when actuated expands the display assembly from its stowed volume to its deployed volume.

6. The apparatus of Claim 4 further comprising:

a self powered positioner which when actuated transitions the display assembly from its stowed orientation to its deployed orientation.

7. The apparatus of Claim 1 further comprising:

a lens assembly coupled to the grip; and

an image sensing array (ISA) optically coupled to the lens assembly.

8. The apparatus of Claim 7 further comprising:

a sensor to detect a position of the display assembly relative to the ISA and cause an adjustment to an image displayed on the display assembly based on the position to maintain a consistent orientation of a target on the display.

9. The apparatus of Claim 1 further comprising:

a distributed network interface coupled to the display assembly.

10. The apparatus of Claim 7 wherein the binocular display assembly comprises:

a photographic light source.

11. The apparatus of Claim 7 wherein the binocular display assembly comprises:

a photographic light source positioned sufficiently far from the lens assembly to reduce illumination errors.

12. The apparatus of Claim 7 further comprising:

a trigger to cause a capture by the ISA, the trigger disposed on the grip to allow actuation by an index finger of a hand holding the grip.

13. The apparatus of Claim 12 wherein any actuation of the trigger causes a capture.

14. The apparatus of Claim 1 further comprising:

a pointer button coupled to the grip to provide an interface for user manipulation of a pointer within the display.

15. The apparatus of claim 14 wherein the pointer button is disposed to allow actuation by the thumb of a hand holding the grip.

16. The apparatus of Claim 1 wherein the pointer button is only accessible when the grip is in a deployed orientation.

17. The apparatus of Claim 14 wherein the pointer button resides within a region and wherein a position of the pointer button within the region is absolutely mapped to the display.

18. The apparatus of Claim 1 wherein the trigger and the pointer button provide access to substantially all user controls without the need for other buttons.

19. The apparatus of Claim 1 wherein the apparatus defines a plurality of memory card slots.

20. The apparatus of Claim 7 further comprising:

a plurality of memory card interfaces to permit a plurality of memory cards to be concurrently attached and electronically selected by the apparatus.

21. The apparatus of Claim 1 wherein at least a first position is suitable for right handed use and at least a second position is suitable for left-handed use.

22. The apparatus of Claim 1 wherein in the deployed orientation, the grip may pivot to at least one self maintaining position on an axis orthogonal to an axis of rotation of the display assembly.

23. The apparatus of Claim 1 further comprises:

a visor coupled to the housing and to rest upon a forehead of the user when held by a user for use, the visor having a cross-dimension selected to maintain a predetermined focal distance between the first lens and an eye of the user, the visor pivots coupled to the display assembly to pivot between an open and a closed position.

24. The apparatus of Claim 23 wherein pivoting the visor to the open position activates the display.

25. The apparatus of Claim 23 wherein when the visor is in the closed position, the display is in an inactive state.

26. The apparatus of Claim 23 wherein the visor protects a lens of the display assembly when in the closed position.

27. The apparatus of Claim 24 further comprising:

a timer that times out after a predetermined time during which no display event occurred, the time out causing the display to deactivate; and

wherein cycling the visor activates the display.

28. An apparatus comprising:

a grip having a stowed orientation and a deployed orientation; and

a digital display assembly having a stowed orientation and a deployed orientation, such that, in the deployed orientation, the display is laterally displaced relative to the grip such that, in use, a hand holding the grip is laterally displaced relative to a frontal face of a head of a user.

29. The apparatus of 28 wherein in the stowed orientation at least 25% of a deployed volume of the display assembly overlaps with a volume of the grip.

30. The apparatus of Claim 28 further comprising:

a pointer button coupled to the grip to provide an interface for user manipulation of a pointer on the display, wherein, the pointer button is only accessible when the grip is in the deployed orientation.

31. The apparatus of Claim 28 further comprising:

a sensor to detect relative rotation of the display assembly and to signal the display to adjust an image on the display to maintain a consistent orientation of an image displayed.

32. The apparatus of Claim 28 further comprising:

a self powered expander which when actuated expands the display assembly from its stowed volume to its deployed volume.

33. The apparatus of Claim 28 further comprising:

a self powered positioner which when actuated transitions the display assembly from its stowed orientation to its deployed orientation.

34. The apparatus of Claim 28 further comprising:
a lens assembly coupled to the grip; and
an image sensing array (ISA) optically coupled to the lens assembly.

35. The apparatus of Claim 34 further comprising:
a sensor to detect a position of the display assembly relative to the ISA and cause an adjustment to an image displayed on the display assembly based on the position to maintain a consistent orientation of a target on the display.

36. The apparatus of Claim 28 further comprising:
a distributed network interface coupled to the display assembly.

37. The apparatus of Claim 36 further comprising:
a photographic light source.

38. The apparatus of Claim 36 further comprising:
a photographic light source positioned sufficiently far from the lens assembly to reduce illumination errors.

39. The apparatus of Claim 36 further comprising:
a trigger to cause a capture by the ISA, the trigger disposed on the grip to allow actuation by an index finger of a hand holding the grip.

40. The apparatus of Claim 28 wherein in the deployed orientation, the grip may pivot to at least one self maintaining position on an axis orthogonal to an axis of rotation of the display assembly.

41. The apparatus of Claim 31 wherein in the deployed orientation, the grip defines an first acute angle away from a body of an operator to permit comfort and reduce stress on the hand and arm.

42. The apparatus of Claim 41 wherein any actuation of the trigger causes a capture.

43. The apparatus of Claim 28 wherein the pointer button resides within a region and wherein a position of the pointer button within the region is absolutely mapped to the display.

44. The apparatus of Claim 28 wherein the trigger and the pointer button provide access to substantially all user controls without the need for other buttons.

45. The apparatus of Claim 28 wherein apparatus defines a plurality of memory card slots.

46. The apparatus of Claim 36 further comprising:

a plurality of memory card interfaces to permit a plurality of memory cards to be concurrently attached and electronically selected by the apparatus.

47. The apparatus of Claim 28 further comprises:

a visor coupled to the housing and to rest upon a forehead of the user when held by a user for use, the visor having a cross-dimension selected to maintain a predetermined focal distance between the first lens and an eye of the user, the visor pivots coupled to the display assembly to pivot between an open and a closed position.

48. The apparatus of Claim 47 wherein pivoting the visor to the open position activates the display.

49. The apparatus of Claim 47 wherein when the visor is in the closed position, the display is in an inactive state.

50. The apparatus of Claim 47 wherein the visor protects a lens of the display assembly when in the closed position.

51. The apparatus of Claim 48 further comprising:

a timer that times out after a predetermined time during which no display event occurred, the time out causing the display to deactivate; and

wherein cycling the visor activates the display.

52. A camera comprising:

an image sensing array (ISA);

a lens assembly; and

a plurality of memory card slots to which a plurality of memory card devices can be concurrently attached and selected electronically.

53. The camera of claim 52 wherein at least two of the memory card slots accept a same media type.

54. An apparatus comprising:

a binocular display assembly;

an execute input interface; and

a pointer interface providing absolute mapping between a pointer button and a display of the display assembly wherein substantially all functions of the apparatus can be accessed using only the pointer interface and the execute input interface.

55. A handheld apparatus comprising:

a housing defining a first opening;

a digital display disposed within the housing;

a first lens disposed to be between a first eye of a user and the display when in use; and

a visor coupled to the housing and to rest upon a forehead of the user when held by a user for use, the visor having a cross-dimension selected to maintain a predetermined focal distance between the first lens and an eye of the user.

56. The apparatus of Claim 55 further comprising:

a second lens disposed to be between a second eye of the user and the display when in use such that a binocular view is presented to the eyes of the user.

57. The apparatus of Claim 55 wherein the visor is pivotally coupled to the housing to pivot between an open position and a closed position.

58. The apparatus of Claim 55 wherein the cross-dimension is adjustable within a range.

59. The apparatus of Claim 55 wherein the visor is coupled to the housing so as to block some ambient light from the eye of the user when the apparatus is in use.

60. A handheld apparatus comprising:

a housing;

a display within the housing to display a virtual keyboard; and

a first and a second user input device, each independent of the other and concurrently operable to activate keys on the virtual keyboard.

61. The apparatus of Claim 60 further comprising:

a first and a second detector coupled to the first input device and the second input device, respectively, to detect when a user is in contact with the respective device.

62. The apparatus of Claim 61 wherein the display displays a virtual keyboard when both sensors detect contact.

63. The apparatus of Claim 61 wherein the display displays a mouse cursor when only one detector detects contact.

64. The apparatus of Claim 60 wherein when the keyboard is displayed, a location indicator for each user input device is simultaneously displayed; and

wherein when the location indicator overlaps a key on the keyboard, the key is highlighted.

65. The apparatus of Claim 60 wherein the position of at least one of the first input device is absolutely mapped to a first location on the display and the second input device is absolutely mapped to a second location on the display.

66. The apparatus of Claim 65 wherein the first location is in a first subsection of the display and the second location is in a second subsection of the display and wherein the first subsection and the second subsection do not overlap.

67. The apparatus of Claim 60 further comprising:

a first and a second activator coupled to the first and second input device, respectively, such that actuation of the respective activator results in a key press event at the keyboard on the display.

68. The apparatus of Claim 67 further comprising:

a location buffer, the location buffer to store location data for one input device prior to actuation and again after actuation to permit compensation for translation during actuation of the input device.

69. The apparatus of Claim 60 wherein the display is a binocular display.

70. The apparatus of Claim 69 further comprising an imaging unit.

71. An apparatus comprising:

a camera;

a display integrated into the camera, the display having a first region to display first image at a full display resolution; and

a second region to simultaneously display a second image at substantially reduced resolution.

72. The apparatus of Claim 71 wherein the second region is an inset within the first region.

73. The apparatus of Claim 71 wherein the first image and the second image may be toggled between a current view of the camera and a previously captured image.